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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,769	02/26/2001	Stefan Hennen	SIEM0013U/US	3734
31518	7590	10/01/2004	EXAMINER	
NEIFELD IP LAW, PC 2001 JEFFERSON DAVIS HIGHWAY ARLINGTON, VA 22202			SHAH, CHIRAG G	
			ART UNIT	PAPER NUMBER
			2664	9

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,769

Applicant(s)

HENNEN ET AL.

Examiner

Chirag G Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/26/00</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 3-19 and 21-33 rejected under 35 U.S.C. 102(a) as being anticipated by Berlin (Alcatel 1641 Synchronous Digital Cross-Connect).

Referring to claim 1, Berlin discloses in figure 3 of a method for operating a telecommunication system that contains data traffic units (input/output interface modules, page 37 and figure 3) and clock handling units (clock modules, page 39 and figure 3) that can comprise both line as well as assemblies, in which at least one part can be redundantly operated (the clock signal are distributed from each module by two redundant channels as disclosed in clock module section of page 39), the method comprising the steps of:

defining a redundancy for a defined redundancy entity, the defined redundancy entity being either at least one part of the data traffic units or at least one part of the clock handling units [as disclosed in figure 3 and on page 29, the clock signals are distributed from each clock module by two redundant channels and as disclosed in figures 3, 4 and on pages 37, 38 and first paragraph of 39, the input/output module generates STM-1 frame which is transmitted to the matrix for cross connection, the matrix module establishes redundancy of the input and output/interface modules. The matrix module contains duplicated matrices, such that they

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contain the same connection. In addition, the input/output modules include duplicated local processors monitoring the access boards, and duplicated clock distribution boards];

establishing the defined redundancy for the defined redundancy entity [figure 3, pages 37. table 1, where the input/output modules have define redundancy to be $N+1$]; and

establishing a redundancy corresponding to the defined redundancy for at least one other part which is not the defined redundancy entity [as disclosed on page 36, 2nd paragraph, page 41 and table 1, where the input/output modules have defined redundancy to be $N+1$, and since both data module and clock module are connected as in figure 3, the defined redundancy for data module corresponds thereto is established for the clock module] as claim.

Referring to claim 17, Berlin discloses in figure 3 of a telecommunication system, comprising:

Berlin discloses in figure 3 and on page 37 of data traffic units (input/output interface modules) for implementing data traffic, and the data traffic units capable of being redundantly operated [as disclosed on page 37, in addition to the normal and associated standby access boards, an input-output module includes external and internal protection boards, the duplicated local processors monitoring the access boards, the duplicated clock distribution boards and the converters which are also protected];

clock handling units for clock handling, the clock handling units capable of comprising lines and assemblies and capable of being redundantly operated [as disclosed in figure 3 and on page 29, the clock signals are distributed from each clock module by two redundant channels];

a data traffic unit redundancy mechanism for establishing a redundancy of at least one part of data traffic units [as disclosed in figures 3, 4 and on pages 37, 38 and first paragraph of

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39, the input/output module generates STM-1 frame which is transmitted to the matrix for cross connection, the matrix module establishes redundancy of the input and output/interface modules. The matrix module contains duplicated matrices, such that they contain the same connection. In addition, the input/output modules includes duplicated local processors monitoring the access boards, and duplicated clock distribution boards]; and

a clock handling unit redundancy mechanism for establishing a redundancy of at least one part of the clock handling units [as disclosed in figure 3, 4, and on pages 38 and 39, the internal 155 MHz clock signal is produced from external signals for the entire network node in which the cross-connect is installed. The clock signal is distributed throughout the cross-connect circuits and the clock signals are distributed from each module by two redundant channels];

data traffic unit redundancy mechanism and the clock handling unit redundancy mechanism being connected to one another such that they enable establishing the redundancy of one of the mechanism for establishing by transferring the redundancy of the other mechanism for establishing a redundancy [Berlin discloses that on pages, 39, 38 and 39 and in figure 3 that the matrix module cross connects the input-output modules having incoming data signal and the clock signals are distributed throughout the cross-connect circuits, the clock signals are distributed from each clock module by two redundant channels, thus disclosing that input/output modules redundancy and clock modules redundancy mechanisms are connected to one another. Furthermore, as disclosed on pages 38-39 that when an active matrix detects an error in the internal signal it is monitoring, the system automatically switches to the other matrix or for the clock module, when the first reference signal fails, the second automatically is selected, further

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establishing that enablement of the redundancy of one of the mechanism by transferring the redundancy of the other] as claim.

Referring to claims 3, 22, and 23, Berlin discloses wherein one of the steps of establishing comprises the step of writing at least one data band which can be a central or a local data bank [as disclosed on page 37, column 2 and on page 40, an input-output modules include duplicated local processors and all data is stored on it] as claim.

Referring to claims 4 and 24, Berlin discloses wherein establishing the redundancy corresponding to the defined redundancy comprises a step of determining the defined redundancy [as disclosed on page 36, 2nd paragraph and on page 41, where the defined redundancy may be N+1 or unidirectional 1+1 redundancy and the criteria is based on failed or degraded signals] as claim.

Referring to claims 5 and 25, Berlin discloses wherein establishing and defined redundancy is software-controlled [as disclosed on pages 40-41, the established and defined redundancy is accomplished via the control system's software] as claim.

Referring to claims 6 and 26, Berlin disclose wherein establishing the redundancy corresponding to the defined redundancy sets this redundancy hardware-controlled [as disclosed on page 39 and 40, the control system manage the equipment hardware configuration including input-output modules and matrix modules having defined redundancy] as claim.

Referring to claims 7 and 27, Berlin disclose of further comprising the step of selecting one of redundant data traffic units and clock handling units [as disclosed on page 39, in takeover mode, when the first reference signal fails, the second is automatically selected] as claim.

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Referring to claims 8 and 28, Berlin discloses wherein defining the redundancy ensues for at least a part of the data traffic units and a redundancy corresponding thereto is established for at least a part of the clock handling units [as disclosed on page 36, 2nd paragraph, page 41 and table 1, where the input/output modules have defined redundancy to be $N+1$, and since both data module and clock module are connected as in figure 3, the defined redundancy for data module corresponds thereto is established for the clock module] as claim.

Referring to claims 9 and 29, Berlin discloses wherein at least one of defined redundancies or redundancies' corresponding thereto is a board redundancy [as disclosed in figure 3, on page 36, 2nd paragraph, on page 41 and in table 1] as claim.

Referring to claims 10 and 30, Berlin discloses wherein at least one of the defined redundancies or redundancies corresponding thereto is a line redundancy [as disclosed in figure 3, on page 36, 2nd paragraph, on page 41 and in table 1] as claim.

Referring to claims 11 and 31, Berlin discloses wherein at least one of the defined redundancies or redundancies corresponding thereto is a 1:N redundancy [as disclosed on page 36, 2nd paragraph, page 41, and table 1, where the defined redundancy may be $N+1$ or unidirectional 1+1 redundancy and the criteria is based on failed or degraded signals] as claim.

Referring to claims 12 and 32, Berlin discloses wherein the 1:N redundancy is a 1:1 redundancy [as disclosed on page 36, 2nd paragraph, page 41, and table 1, where the defined redundancy may be $N+1$ or unidirectional 1+1 redundancy and the criteria is based on failed or degraded signals] as claim.

Referring to claims 13 and 33, Berlin discloses wherein at least one of the defined redundancies or redundancies corresponding thereto is a 1+1 redundancy [as disclosed on page

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36, 2nd paragraph, page 41 and table 1, where the defined redundancy may be N+1 or unidirectional 1+1 redundancy and the criteria is based on failed or degraded signals] as claim.

Referring to claims 14 and 18, Berlin discloses of further comprising the step of providing at least one interface card which is a part of at least one part of the data traffic units [as disclosed in figure 3, 4 and table 1, where the input/output module includes interfaces per module] as claim

Referring to claims 15 and 19, Berlin discloses of further comprising the step of providing at least one interface card which is a part of at least one part of the clocking handling units [as disclosed in figure 3] as claim.

Referring to claims 16 and 21, Berlin discloses of further comprising the step of providing a clock generator which is a part of at least one part of the clock handling units [as disclosed in figure 3 and on page 39] as claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Berlin in view of Blackburn et al (U.S Patent No. 6,285,673).

Referring to claims 2 and 20, Berlin discloses in figure 3 of a telecommunication system. Berlin fails to explicitly disclose wherein the telecommunication system is an ATM telecommunication system. Blackburn discloses of a switching matrix in figure 1. Blackburn

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further discloses in figure 2 of having redundant CDS (Clock Distributor units 21). Blackburn also discloses in column 45, lines 12 to column 46, lines 65 of having redundant interface units in cross coupling signals between MTXI and switching matrix. Blackburn, thus, teaches of automatic switchover when error is detected. Berlin further discloses in column 10, lines 1-33 that the telecommunication system is compatible with ATM transport. Therefore, it would have been obvious to one of ordinary skill in the art to enable the telecommunication system as taught by Berlin to be an ATM telecommunication system utilizing redundant data interface and clock system as taught by Blackburn in order to increase over system availability for transferring data with less overhead and for providing high quality of service in data transferring.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-3988, (for formal communications intended for entry)

Or:

(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the


examiner should be directed to Chirag G Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:00 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
September 22, 2004


Ajit Patel
Primary Examiner